

State of Alaska  
Department of Fish and Game  
Nomination for Waters  
Important to Anadromous Fish

1990  
Year of Revision

Anadromous Water Catalog Volume Southeast Dist

USGS Quad (8) S 17 KA B 5

Name of Waterway -

Anadromous Water Catalog Number of Waterway 113-42-10020

Change to Atlas  
X Catalog  
Both

Addition X

Deletion -

Correction -

Name addition:

USGS name -

Local name -

For Office Use

Nomination #	<u>90 420</u>
<u>Richard Reed</u> Regional Supervisor	<u>12/14/88</u> Date
<u>SAB</u>	<u>11/30/89</u>
<u>F1</u> Drafted	<u>11/14/89</u> Date

Species	Date(s) Observed	Spawning	Rearing	Migration
<u>CUTTHROAT</u>	<u>8/4/88</u>		<u>X</u>	

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

ADD CT TO SPR IN THIS SYSTEM  
SEE ATTACHED

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

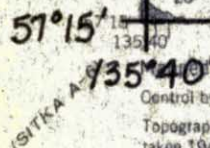
Name of Observer (please print) RANDY KACYON - STEVE ELLIOTT

Date: 11/25/88 Signature: SEE ATTACHED

Address: -

Signature of Area Biologist: Dore Hardy





Entire land area is within the Tongass National Forest.



FOR SALE BY U. S. GEOLOGICAL SURVEY  
FAIRBANKS, ALASKA DENVER 25, COLORADO  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS

SITKA, B5



## STREAM SURVEY SUMMARY

STREAM: "Narrow Bay Logged"  
LOCATION: NW Nakwasina Passage

<u>MAP REFERENCE:</u> Sitka B-5	<u>LATITUDE:</u> 57° 17' N	<u>LONGITUDE:</u> 135° 30' W
<u>TRIBUTARY TO:</u> 113-42-10010	<u>MAIN DRAINAGE:</u> Same	
<u>ORIGIN:</u> Low lying forest, clearcut		
<u>LENGTH:</u> 1 mile	<u>WATERSHED AREA:</u> 1mi <sup>2</sup>	

1. FLOW:  
RANGE: 0.7m<sup>3</sup>/sec. VELOCITY: 22.2cm/sec. AVG. WIDTH: 325.5 cm  
FLOOD HEIGHT: COLOR/TURBIDITY: Clear/Clear AVG. DEPTH: 12.2 cm
2. ACCESSIBILITY: Boat from Sitka (½ to 1 hour); 1 mile up main stream to tributary
3. ACCESS STATUS: Boat, helicopter (on site), float plane to nearby bay
4. SECTION SURVEYED: 300 meters from confluence with unlogged tributary at the forks  
TRIBUTARIES: None
5. BOTTOM TYPE: Rubble  
STREAM GRADIENT: 1.6%
6. POOLS-DESCRIPTION & FREQUENCY: Size 1, Type 2, Frequency 3
7. BARRIERS: None
8. SPAWNING AREA: Good for coho, cutthroat, Dolly Varden
9. BANK COVER: Sparse - slightly shaded
10. WATERSHED TYPE: Clearcut, lowland forest with mature alders
11. FISH SPECIES: Dolly Varden, cutthroat, coho, and sculpins
12. FISHING HISTORY: None
13. FISHING INTENSITY: None
14. INVERTEBRATES: ABUNDANCE:
15. AQUATIC VEGETATION: Sparse and non-existent
16. WATER USE: None
17. POLLUTION: None
18. REMARKS:

BY: Randy Kacyon

DATE: August 4, 1982

SPORT FISH - LAND USE PROJECT  
STREAM SURVEY

Quad Map: Sitka B-5  
Tributary to: 113-42-001

Stream: "Narrow Bay Logged"  
Loc: Nakwasina Passage  
Date: September 21, 1982

Water Quality

D.O.: 11 mg/L  
Conductivity: 76 umho  
Total Hardness: 49 mg/L

Temp.: 9.5°C  
Alkalinity: 43.5 mg/L  
Calcium Hard.: 42 mg/L  
pH: 6.7

Morphology

Mean Discharge: .07 m<sup>3</sup>/s  
Surface Area/300m reach: 672.1 m<sup>2</sup>

Mean Gradient: 1.6%  
Pool volume/300m: 31.35 m<sup>3</sup>

Fish

Dolly Varden Juveniles

Density (no./m<sup>2</sup>): .11  
Biomass (g/m<sup>2</sup>): 1.06

Coho Salmon Juveniles

Density (no./m<sup>2</sup>): .16  
Biomass (g/m<sup>2</sup>): .60

<u>Age</u>	<u>Mean Fork Length</u>	<u>Mean Weight</u>
0		
I		
II		
III		
IV		
V		
$\bar{x}$		

<u>Age</u>	<u>Mean Fork Length</u>	<u>Mean Weight</u>
0		
I		
II		
III		
$\bar{x}$		

No. Other Species Caught

31 sculpin  
31 cutthroat trout



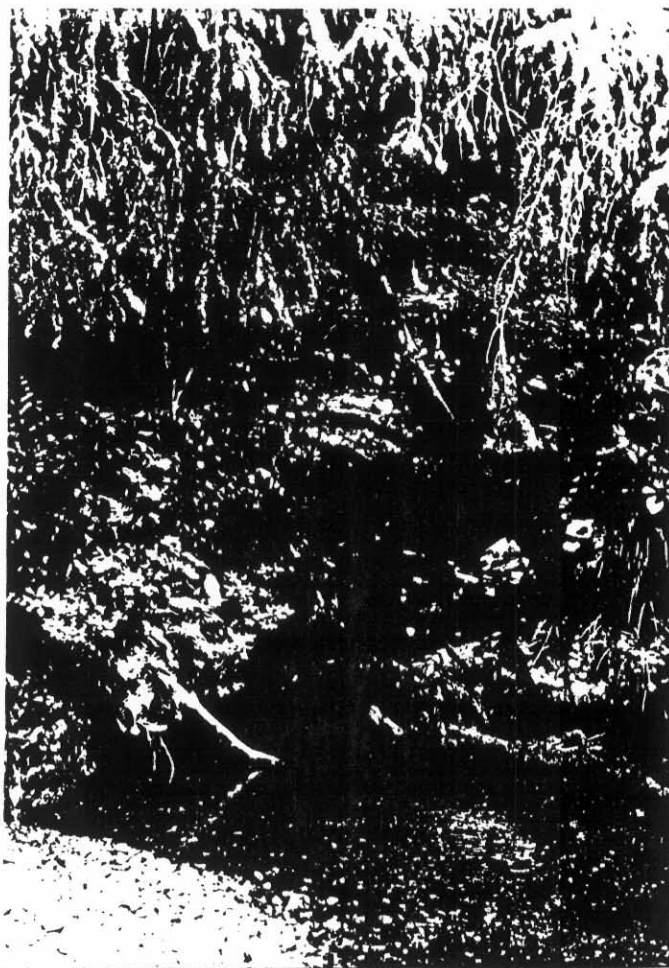


Figure 45. Narrow Bay Logged, showing section 4.

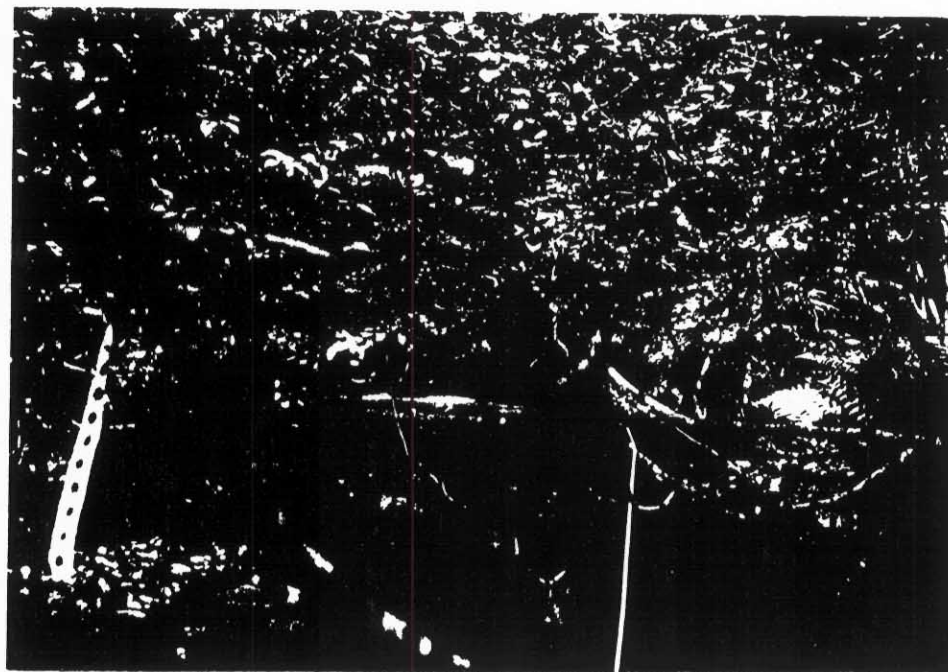


Figure 46. Narrow Bay Logged, showing section 6.

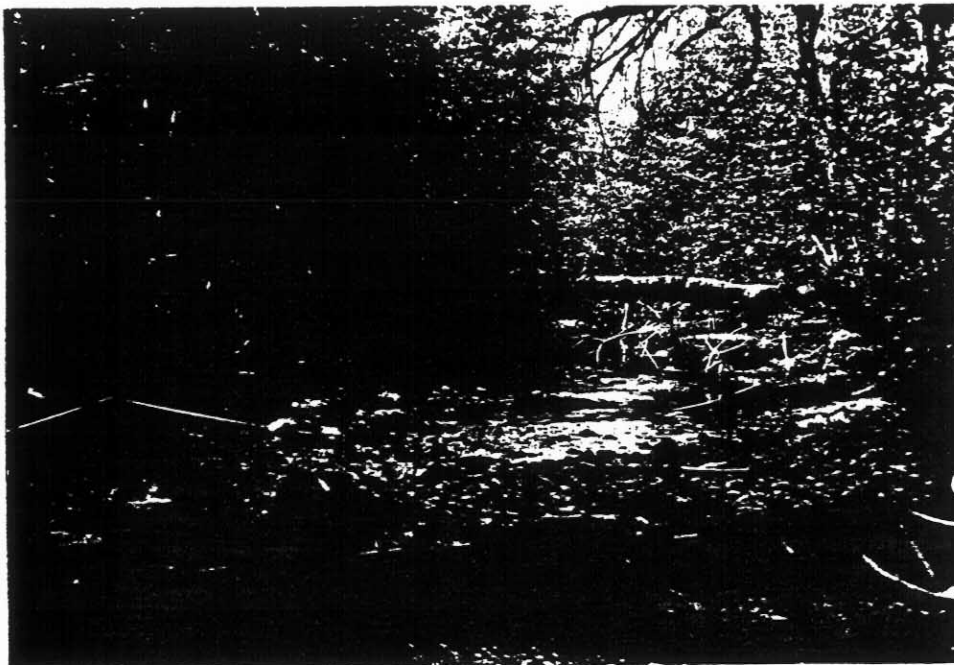


Figure 47. Narrow Bay Logged, showing section 9.



# STREAM SURVEY SUMMARY

STREAM: "Narrow Bay Unlogged"  
LOCATION: NW Nakwasina Passage

MAP REFERENCE: Sitka B-5  
TRIBUTARY TO: 113-42-10010  
ORIGIN: Low lying forest and muskeg  
LENGTH: 400 yards

LATITUDE: 57° 17' N  
MAIN DRAINAGE: Same  
WATERSHED AREA: .5mi<sup>2</sup>

LONGITUDE: 135° 30' W

1. FLOW: .027m<sup>3</sup>/sec.  
RANGE: 427.5gal/sec. .95cfs  
VELOCITY: Sluggish  
AVG. WIDTH: 297.4 cm  
AVG. DEPTH: 10.7 cm  
FLOOD HEIGHT: 1 meter  
COLOR/TURBIDITY: Slight muskeg stain/slightly turbid
2. ACCESSIBILITY: Boat from Sitka (½ to 1 hour) 1 mile up main drainage to tributary
3. ACCESS STATUS: Boat, helicopter (on site), float plane to main drainage
4. SECTION SURVEYED: 300 meters from confluence with main drainage  
TRIBUTARIES: None
5. BOTTOM TYPE: Gravel  
STREAM GRADIENT: 1.0%
6. POOLS-DESCRIPTION & FREQUENCY: Size 3, Type 2, Frequency 3
7. BARRIERS: None
8. SPAWNING AREA: Pink & coho both spawn in reach; pinks observed in stream in early September
9. BANK COVER: Intensely shaded
10. WATERSHED TYPE: Low lying forest with several runoff tributaries and possibly muskeg influence at source
11. FISH SPECIES: Dolly Varden, coho, sculpin (resident); spawners = pink & coho
12. FISHING HISTORY: None
13. FISHING INTENSITY: None
14. INVERTEBRATES: ABUNDANCE:
15. AQUATIC VEGETATION: Sparse - some algal forms
16. WATER USE: None
17. POLLUTION: None
18. REMARKS:

BY: Randy Kacyon

DATE: July 28, 1982

SPORT FISH - LAND USE PROJECT  
STREAM SURVEY

Quad Map: Sitka B-5  
Tributary to: "unnamed"

Stream: "Narrow Bay Unlogged"  
Loc: Nakwasina Passage  
Date: September 21, 1982

Water Quality

D.O.: 10 mg/L  
Conductivity: 30 umho  
Total Hardness: 25 mg/L

Temp.: 10.8°C  
Alkalinity: 19.5 mg/L  
Calcium Hard.: 22 mg/L  
pH: 6.7

Morphology

Mean Discharge: 0.27 m<sup>3</sup>/s  
Surface Area/300m reach: 730.7 m<sup>2</sup>

Mean Gradient: 1.0%  
Pool volume/300m: 34.89 m<sup>3</sup>

Fish

Dolly Varden Juveniles

Density (no./m<sup>2</sup>): .08  
Biomass (g/m<sup>2</sup>): .57

Coho Salmon Juveniles

Density (no./m<sup>2</sup>): .16  
Biomass (g/m<sup>2</sup>): .86

<u>Age</u>	<u>Mean Fork Length</u>	<u>Mean Weight</u>
0		
I		
II		
III		
IV		
V		
$\bar{x}$		

<u>Age</u>	<u>Mean Fork Length</u>	<u>Mean Weight</u>
0		
I		
II		
III		
$\bar{x}$		

No. Other Species Caught

13 sculpin  
12 cutthroat trout



"NARROW BAY"  
(Logged and Unlogged)

June 17, 1982

Walked up tributary of Nakwasina Passage ("Narrow Bay") off the main drainage until it forked. I walked the left fork up 400 m into another forest, after it crossed a first forest and muskeg. The clearcut of this valley was 100-300 m from stream to the east. This was stream <01.

This stream was a good unlogged site, full of coho and good substrate and flow. It was bordered by sedge (*Carex* sp.), hemlock-spruce, and devil's club. The substrate is gravel and small rock and very few log crossings or debris in stream. It is easily walked and is about 50% pools-riffle ratio.

We both walked up a tributary to this bay up to a large 4 acre muskeg lake (source) that turned out to be a good study stream (unlogged) 300 m and then turned into a clearcut 100-150 m and then 50 m in to a marsh-muskeg area and then finally into the lake. Cohos were seen all along the stream and into the lake. The water was dark tea and 1-2 m wide, slow flowing with sandy-gravel and mucky bottom. Hemlock-cedar and skunk cabbage was the vegetation bordering this stream in the unlogged area, then salmonberry-alder and devil's club bordered the logged section. This stream was located near to the mouth of the bay on the north shore.



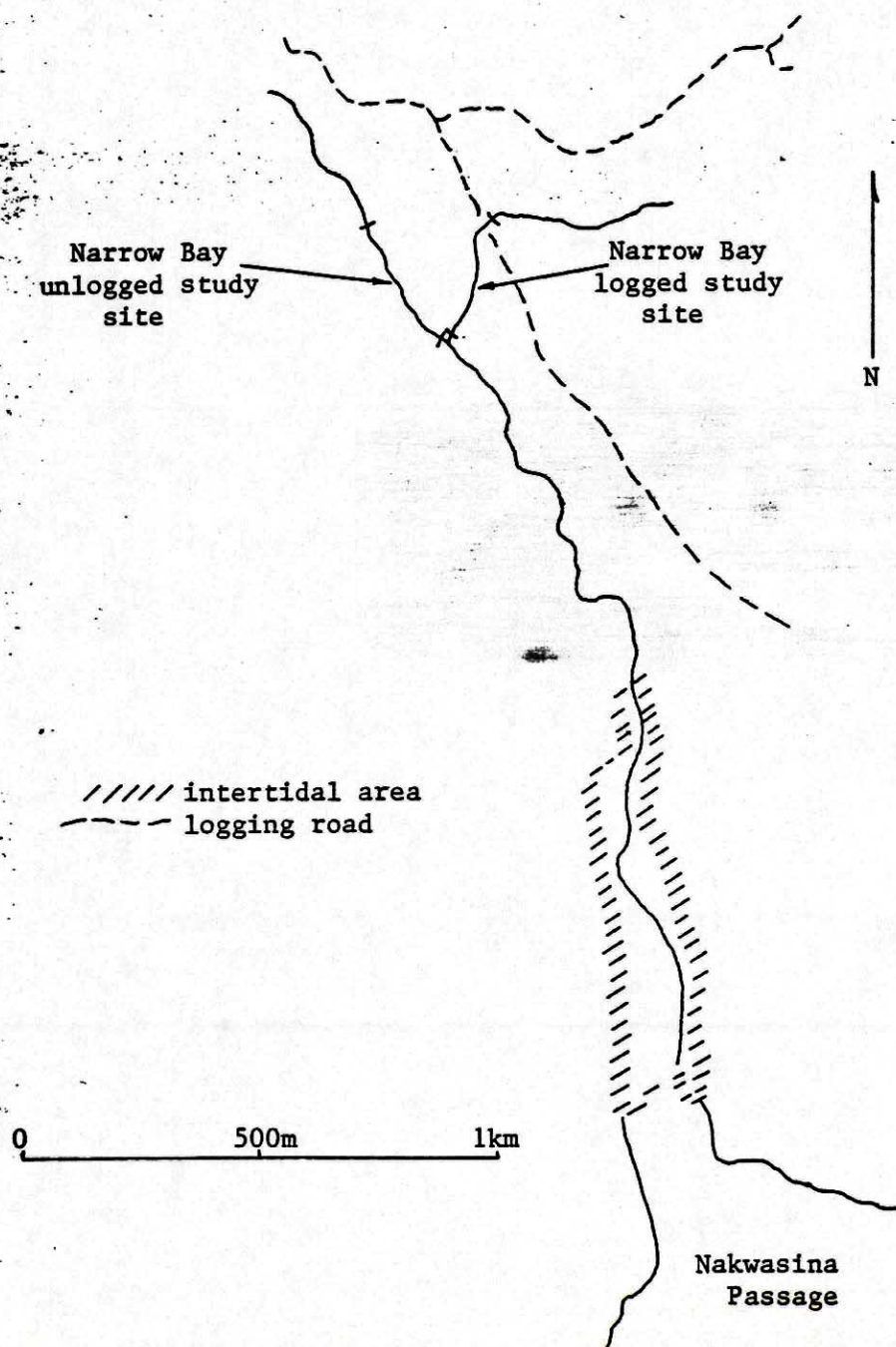


Figure 39. Narrow Bay Logged and Unlogged study sites.





Figure 40. - Narrow Bay Unlogged, showing section 3.

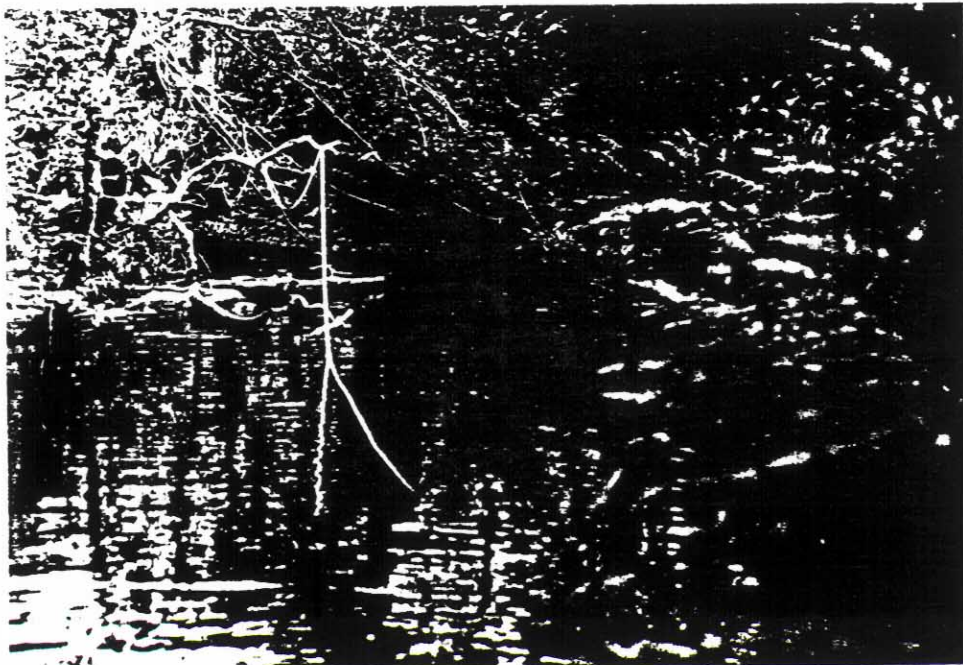


Figure 41. Narrow Bay Unlogged, showing section 4.

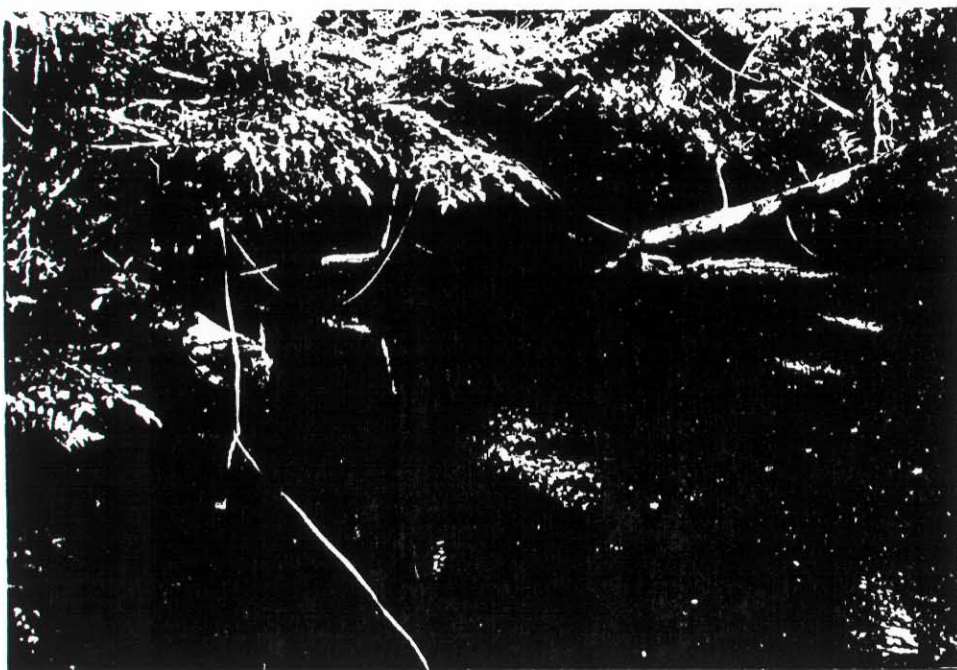


Figure 42. Narrow Bay Unlogged, showing section 7.

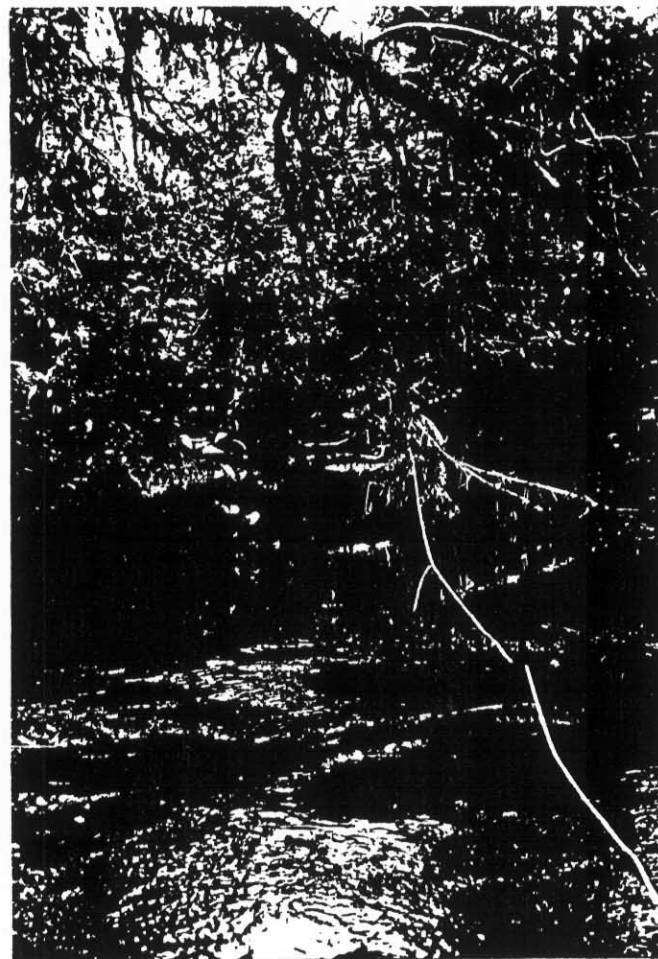


Figure 43. Narrow Bay Unlogged, showing section 9.